E. Ohlans

ENTERED

1600

#12

RAW SEQUENCE LISTING DATE: 08/27/2003
PATENT APPLICATION: US/09/899,422A TIME: 12:54:43

Input Set : N:\EBONY'S\US09899422A.raw.txt
Output Set: N:\CRF4\08272003\I899422A.raw

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      1 <110> APPLICANT: Hauptmann, Rudolph
      2       Himmler, Adolph
      3       Maurer-Fogy, Ingrid
      4       Stratowa, Christian
      5 <120> TITLE OF INVENTION: TNF Receptors, TNF Binding Proteins and DNAs Coding for
      6       Them
      7 <130> FILE REFERENCE: 98-385-H
C-->  8 <140> CURRENT APPLICATION NUMBER: US/09/899,422A
      9 <141> CURRENT FILING DATE: 2001-07-03
     10 <150> PRIOR APPLICATION NUMBER: 09/525,998
     11 <151> PRIOR FILING DATE: 2000-03-15
     12 <150> PRIOR APPLICATION NUMBER: 08/383,676
     13 <151> PRIOR FILING DATE: 1995-02-01
     14 <150> PRIOR APPLICATION NUMBER: 08/153,287
     15 <151> PRIOR FILING DATE: 1993-11-17
     16 <150> PRIOR APPLICATION NUMBER: 07/821,750
     17 <151> PRIOR FILING DATE: 1992-01-02
     18 <150> PRIOR APPLICATION NUMBER: 07/511,430
     19 <151> PRIOR FILING DATE: 1990-04-20
     20 <160> NUMBER OF SEQ ID NOS: 97
     21 <170> SOFTWARE: PatentIn Ver. 2.0
     23 <210> SEQ ID NO: 1
     24 <211> LENGTH: 1368
     25 <212> TYPE: DNA
     26 <213> ORGANISM: Homo sapiens
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     28 <221> NAME/KEY: CDS
     29 <222> LOCATION: (1)..(1365)
     30 <220> FEATURE:
     31 <221> NAME/KEY: sig_peptide
     32 <222> LOCATION: (1)..(87)
     33 <220> FEATURE:
     34 <221> NAME/KEY: misc_feature
     35 <222> LOCATION: (88)..(120)
     36 <223> OTHER INFORMATION: portion of TNF-BP pro protein cleaved by
     37       extracellular proteases following secretion
     38 <220> FEATURE:
     39 <221> NAME/KEY: misc_feature
     40 <222> LOCATION: (606)..(633)
     41 <223> OTHER INFORMATION: portion of TNF-BP pro protein cleaved by
     42       extracellular proteases following secretion
     43 <400> SEQUENCE: 1
     44       atg ggc ctc tcc acc gtg cct gac ctg ctg ctg cca ctg gtg ctc ctg   48
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RAW SEQUENCE LISTING DATE: 08/27/2003
PATENT APPLICATION: US/09/899,422A TIME: 12:54:43

Input Set : N:\EBONY'S\US09899422A.raw.txt
Output Set: N:\CRF4\08272003\I899422A.raw

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Met Gly Leu Ser Thr Val Pro Asp Leu Leu Leu Pro Leu Val Leu Leu
  1               5                  10                  15
gag ctg ttg gtg gga ata tac ccc tca ggg gtt att gga ctg gtc cct   96
Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro
            20                  25                  30
cac cta ggg gac agg gag aag aga gat agt gtg tgt ccc caa gga aaa   144
His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys
        35                  40                  45
tat atc cac cct caa aat aat tcg att tgc tgt acc aag tgc cac aaa   192
Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys
    50                  55                  60
gga acc tac ttg tac aat gac tgt cca ggc ccg ggg cag gat acg gac   240
Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp
65                  70                  75                  80
tgc agg gag tgt gag agc ggc tcc ttc acc gct tca gaa aac cac ctc   288
Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu
                85                  90                  95
aga cac tgc ctc agc tgc tcc aaa tgc cga aag gaa atg ggt cag gtg   336
Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val
            100                 105                 110
gag atc tct tct tgc aca gtg gac cgg gac acc gtg tgt ggc tgc agg   384
Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg
        115                 120                 125
aag aac cag tac cgg cat tat tgg agt gaa aac ctt ttc cag tgc ttc   432
Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe
    130                 135                 140
aat tgc agc ctc tgc ctc aat ggg acc gtg cac ctc tcc tgc cag gag   480
Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu
145                 150                 155                 160
aaa cag aac acc gtg tgc acc tgc cat gca ggt ttc ttt cta aga gaa   528
Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu
                165                 170                 175
aac gag tgt gtc tcc tgt agt aac tgt aag aaa agc ctg gag tgc acg   576
Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr
            180                 185                 190
aag ttg tgc cta ccc cag att gag aat gtt aag ggc act gag gac tca   624
Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser
        195                 200                 205
ggc acc aca gtg ctg ttg ccc ctg gtc att ttc ttt ggt ctt tgc ctt   672
Gly Thr Thr Val Leu Leu Pro Leu Val Ile Phe Phe Gly Leu Cys Leu
    210                 215                 220
tta tcc ctc ctc ttc att ggt tta atg tat cgc tac caa cgg tgg aag   720
Leu Ser Leu Leu Phe Ile Gly Leu Met Tyr Arg Tyr Gln Arg Trp Lys
225                 230                 235                 240
tcc aag ctc tac tcc att gtt tgt ggg aaa tcg aca cct gaa aaa gag   768
Ser Lys Leu Tyr Ser Ile Val Cys Gly Lys Ser Thr Pro Glu Lys Glu
                245                 250                 255
ggg gag ctt gaa gga act act act aag ccc ctg gcc cca aac cca agc   816
Gly Glu Leu Glu Gly Thr Thr Thr Lys Pro Leu Ala Pro Asn Pro Ser
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RAW SEQUENCE LISTING DATE: 08/27/2003
PATENT APPLICATION: US/09/899,422A TIME: 12:54:43

Input Set : N:\EBONY'S\US09899422A.raw.txt
Output Set: N:\CRF4\08272003\I899422A.raw

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94                  260                 265                 270
95       ttc agt ccc act cca ggc ttc acc ccc acc ctg ggc ttc agt ccc gtg   864
96       Phe Ser Pro Thr Pro Gly Phe Thr Pro Thr Leu Gly Phe Ser Pro Val
97               275                 280                 285
98       ccc agt tcc acc ttc acc tcc agc tcc acc tat acc ccc ggt gac tgt   912
99       Pro Ser Ser Thr Phe Thr Ser Ser Ser Thr Tyr Thr Pro Gly Asp Cys
100           290                 295                 300
101       ccc aac ttt gcg gct ccc cgc aga gag gtg gca cca ccc tat cag ggg   960
102       Pro Asn Phe Ala Ala Pro Arg Arg Glu Val Ala Pro Pro Tyr Gln Gly
103       305                 310                 315                 320
104       gct gac ccc atc ctt gcg aca gcc ctc gcc tcc gac ccc atc ccc aac  1008
105       Ala Asp Pro Ile Leu Ala Thr Ala Leu Ala Ser Asp Pro Ile Pro Asn
106                       325                 330                 335
107       ccc ctt cag aag tgg gag gac agc gcc cac aag cca cag agc cta gac  1056
108       Pro Leu Gln Lys Trp Glu Asp Ser Ala His Lys Pro Gln Ser Leu Asp
109                   340                 345                 350
110       act gat gac ccc gcg acg ctg tac gcc gtg gtg gag aac gtg ccc ccg  1104
111       Thr Asp Asp Pro Ala Thr Leu Tyr Ala Val Val Glu Asn Val Pro Pro
112               355                 360                 365
113       ttg cgc tgg aag gaa ttc gtg cgg cgc cta ggg ctg agc gac cac gag  1152
114       Leu Arg Trp Lys Glu Phe Val Arg Arg Leu Gly Leu Ser Asp His Glu
115           370                 375                 380
116       atc gat cgg ctg gag ctg cag aac ggg cgc tgc ctg cgc gag gcg caa  1200
117       Ile Asp Arg Leu Glu Leu Gln Asn Gly Arg Cys Leu Arg Glu Ala Gln
118       385                 390                 395                 400
119       tac agc atg ctg gcg acc tgg agg cgg cgc acg ccg cgg cgc gag gcc  1248
120       Tyr Ser Met Leu Ala Thr Trp Arg Arg Arg Thr Pro Arg Arg Glu Ala
121                       405                 410                 415
122       acg ctg gag ctg ctg gga cgc gtg ctc cgc gac atg gac ctg ctg ggc  1296
123       Thr Leu Glu Leu Leu Gly Arg Val Leu Arg Asp Met Asp Leu Leu Gly
124                   420                 425                 430
125       tgc ctg gag gac atc gag gag gcg ctt tgc ggc ccc gcc gcc ctc ccg  1344
126       Cys Leu Glu Asp Ile Glu Glu Ala Leu Cys Gly Pro Ala Ala Leu Pro
127               435                 440                 445
128       ccc gcg ccc agt ctt ctc aga tga                                 1368
129       Pro Ala Pro Ser Leu Leu Arg
130           450                 455
132 <210> SEQ ID NO: 2
133 <211> LENGTH: 455
134 <212> TYPE: PRT
135 <213> ORGANISM: Homo sapiens
136 <400> SEQUENCE: 2
137       Met Gly Leu Ser Thr Val Pro Asp Leu Leu Leu Pro Leu Val Leu Leu
138         1               5                  10                  15
139       Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro
140                    20                  25                  30
141       His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys
142                35                  40                  45
143       Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys
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RAW SEQUENCE LISTING DATE: 08/27/2003
PATENT APPLICATION: US/09/899,422A TIME: 12:54:43

Input Set : N:\EBONY'S\US09899422A.raw.txt
Output Set: N:\CRF4\08272003\I899422A.raw

```
144          50                  55                  60
145      Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp
146       65                  70                  75                  80
147      Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu
148                      85                  90                  95
149      Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val
150                  100                 105                 110
151      Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg
152              115                 120                 125
153      Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe
154          130                 135                 140
155      Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu
156      145                 150                 155                 160
157      Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu
158                      165                 170                 175
159      Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr
160                  180                 185                 190
161      Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser
162              195                 200                 205
163      Gly Thr Thr Val Leu Leu Pro Leu Val Ile Phe Phe Gly Leu Cys Leu
164          210                 215                 220
165      Leu Ser Leu Leu Phe Ile Gly Leu Met Tyr Arg Tyr Gln Arg Trp Lys
166      225                 230                 235                 240
167      Ser Lys Leu Tyr Ser Ile Val Cys Gly Lys Ser Thr Pro Glu Lys Glu
168                      245                 250                 255
169      Gly Glu Leu Glu Gly Thr Thr Thr Lys Pro Leu Ala Pro Asn Pro Ser
170                  260                 265                 270
171      Phe Ser Pro Thr Pro Gly Phe Thr Pro Thr Leu Gly Phe Ser Pro Val
172              275                 280                 285
173      Pro Ser Ser Thr Phe Thr Ser Ser Ser Thr Tyr Thr Pro Gly Asp Cys
174          290                 295                 300
175      Pro Asn Phe Ala Ala Pro Arg Arg Glu Val Ala Pro Pro Tyr Gln Gly
176      305                 310                 315                 320
177      Ala Asp Pro Ile Leu Ala Thr Ala Leu Ala Ser Asp Pro Ile Pro Asn
178                      325                 330                 335
179      Pro Leu Gln Lys Trp Glu Asp Ser Ala His Lys Pro Gln Ser Leu Asp
180                  340                 345                 350
181      Thr Asp Asp Pro Ala Thr Leu Tyr Ala Val Val Glu Asn Val Pro Pro
182              355                 360                 365
183      Leu Arg Trp Lys Glu Phe Val Arg Arg Leu Gly Leu Ser Asp His Glu
184          370                 375                 380
185      Ile Asp Arg Leu Glu Leu Gln Asn Gly Arg Cys Leu Arg Glu Ala Gln
186      385                 390                 395                 400
187      Tyr Ser Met Leu Ala Thr Trp Arg Arg Arg Thr Pro Arg Arg Glu Ala
188                      405                 410                 415
189      Thr Leu Glu Leu Leu Gly Arg Val Leu Arg Asp Met Asp Leu Leu Gly
190                  420                 425                 430
191      Cys Leu Glu Asp Ile Glu Glu Ala Leu Cys Gly Pro Ala Ala Leu Pro
192              435                 440                 445
```

RAW SEQUENCE LISTING DATE: 08/27/2003
PATENT APPLICATION: US/09/899,422A TIME: 12:54:43

Input Set : N:\EBONY'S\US09899422A.raw.txt
Output Set: N:\CRF4\08272003\I899422A.raw

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194           450                 455
196 <210> SEQ ID NO: 3
197 <211> LENGTH: 483
198 <212> TYPE: DNA
199 <213> ORGANISM: Homo sapiens
200 <220> FEATURE:
201 <221> NAME/KEY: CDS
202 <222> LOCATION: (1)..(483)
203 <400> SEQUENCE: 3
204       gat agt gtg tgt ccc caa gga aaa tat atc cac cct caa aat aat tcg   48
205       Asp Ser Val Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser
206         1               5                  10                  15
207       att tgc tgt acc aag tgc cac aaa gga acc tac ttg tac aat gac tgt   96
208       Ile Cys Cys Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys
209                    20                  25                  30
210       cca ggc ccg ggg cag gat acg gac tgc agg gag tgt gag agc ggc tcc   144
211       Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser
212                35                  40                  45
213       ttc acc gct tca gaa aac cac ctc aga cac tgc ctc agc tgc tcc aaa   192
214       Phe Thr Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys
215            50                  55                  60
216       tgc cga aag gaa atg ggt cag gtg gag atc tct tct tgc aca gtg gac   240
217       Cys Arg Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp
218        65                  70                  75                  80
219       cgg gac acc gtg tgt ggc tgc agg aag aac cag tac cgg cat tat tgg   288
220       Arg Asp Thr Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp
221                       85                  90                  95
222       agt gaa aac ctt ttc cag tgc ttc aat tgc agc ctc tgc ctc aat ggg   336
223       Ser Glu Asn Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly
224                   100                 105                 110
225       acc gtg cac ctc tcc tgc cag gag aaa cag aac acc gtg tgc acc tgc   384
226       Thr Val His Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys
227               115                 120                 125
228       cat gca ggt ttc ttt cta aga gaa aac gag tgt gtc tcc tgt agt aac   432
229       His Ala Gly Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn
230           130                 135                 140
231       tgt aag aaa agc ctg gag tgc acg aag ttg tgc cta ccc cag att gag   480
232       Cys Lys Lys Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu
233       145                 150                 155                 160
234       aat                                                           483
235       Asn
237 <210> SEQ ID NO: 4
238 <211> LENGTH: 161
239 <212> TYPE: PRT
240 <213> ORGANISM: Homo sapiens
241 <400> SEQUENCE: 4
242       Asp Ser Val Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser
243         1               5                  10                  15
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RAW SEQUENCE LISTING ERROR SUMMARY DATE: 08/27/2003
PATENT APPLICATION: US/09/899,422A TIME: 12:54:44

Input Set : N:\EBONY'S\US09899422A.raw.txt
Output Set: N:\CRF4\08272003\I899422A.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:23; N Pos. 344,4157,5135,6255
Seq#:28; Xaa Pos. 4
Seq#:29; Xaa Pos. 7
Seq#:32; Xaa Pos. 1,2
Seq#:36; Xaa Pos. 6,10,11,12
Seq#:41; Xaa Pos. 9,10,11
Seq#:43; Xaa Pos. 6,18
Seq#:44; Xaa Pos. 16,17
Seq#:46; Xaa Pos. 7

Invalid Line Length:
The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 5

VERIFICATION SUMMARY DATE: 08/27/2003
PATENT APPLICATION: **US/09/899,422A** TIME: 12:54:44

Input Set : **N:\EBONY'S\US09899422A.raw.txt**
Output Set: **N:\CRF4\08272003\I899422A.raw**

L:8 M:270 C: Current Application Number differs, Wrong Format
L:1087 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:300
M:341 Repeated in SeqNo=23
L:1560 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0
L:1576 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0
L:1611 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0
L:1663 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:0
L:1722 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:0
L:1754 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:0
M:341 Repeated in SeqNo=43
L:1770 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44 after pos.:0
M:341 Repeated in SeqNo=44
L:1797 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:0

STATISTICS SUMMARY DATE: 08/27/2003
PATENT APPLICATION: **US/09/899,422A** TIME: 12:54:44

Input Set : **N:\EBONY'S\US09899422A.raw.txt**
Output Set: **N:\CRF4\08272003\I899422A.raw**

Application Serial Number: US/09/899,422A
Alpha or Numeric or Xml: Numeric
Application Class:
Application File Date: 07-03-2001
Art Unit: 1600
Software Application: PatentIN2.0
Total Number of Sequences: 97
Total Nucleotides: 19901
Total Amino Acids: 3746
Number of Errors: 0
Number of Warnings: 14
Number of Corrections: 1

MESSAGE SUMMARY

270 C: 1 (Current Application Number differs)
341 W: 14 ((46) "n" or "Xaa" used)